The Thermo Scientific Barnstead RO combines water purification innovations, simple operation and a compact, space-saving design. Robust and flexible, it is ideally suited for general lab use such as glassware washing or as a water feed to our Thermo Scientific Barnstead NANOpure, EASYpure II or E-pure ultrapure water systems.

# Product Specifications

### Thermo Scientific Barnstead RO

Reverse Osmosis System



Individual pretreatment cartridges allow single cartridge replacement for low operating costs



#### Intelligent Controls Monitor Vital Information

Advanced controls automate operation, monitor system performance and pressure, while displaying vital information including membrane performance, reservoir level and cartridge status. Internal gauges monitor incoming water and membrane pressure and indicate when prefilter requires changing.



# Multi-Step Purification in a Single System

Delivers multiple purification steps, including the latest innovations in pretreatment and membrane technologies.

#### Simple Operation and Maintenance

All-in-one system includes all required components including prefilter, MPS cartridge, extruded carbon filter and membrane(s). Optional remote mounting control panel enables control placement up to 10 feet away.

#### Technology Innovations Optimize Performance

Unique Membrane Protection System (MPS) protects membranes from surface scale build-up, eliminates the need for softening and extends membrane life.

#### Flexible, Quiet Operation

Flow rates available in 6, 12 or 24 liters/ hour for any application. Pump technology enables extremely quiet operation.

#### Space-Savings, Compact Design

Small footprint is perfect for any size lab and features easy wall or bench mounting (wall bracket included with system).





#### **30-Liter Storage Reservoir**

A flexible and compact storage option ensures you have water when you need it. Offering robust construction and safety controls, the reservoir features:

## Automatic Operation with the Barnstead RO and Barnstead NANOpure:

Level controls start and stop both the RO and accessory equipment based on water levels.

#### **Excellent Water Quality and Safety:**

Fluorinated polyethylene ensures water quality is maintained in storage and vent filter prevents airborne contaminants from entering the reservoir.

#### Thermo Scientific Barnstead RO Reverse Osmosis System

| Specifications |                              |   |                                     |                                |   |   |               |  |  |  |
|----------------|------------------------------|---|-------------------------------------|--------------------------------|---|---|---------------|--|--|--|
| Cat. No.       | Туре                         | Overall Dimensions<br>WxHxD inches (cm)   | Voltage                             | Shipping<br>Weight<br>Ibs (kg) | Inlet Pressure                                    | Plumbing<br>Connection<br>(OD Tubing supplied)                      | %<br>Recovery | Units Include  |  |  |
| D12671         | 6 LPH*<br>(Line<br>Pressure) | 13.5 x 9.5 x 16.9<br>(34.3 x 49.5 x 42.9) | 100-240 VAC<br>47-63 Hz,<br>1 phase | 20.4 kg<br>(45 lb.)            | 2-6.8 bar (30-100 psig)<br>@1.5 liters per minute | Feed Water- 3/8"**<br>Product Water- 3/8"**<br>Reject Water- 1/4"** | 10-20%        | Prefilter, MPS<br>Cartridge, Extruded<br>Carbon Filter and<br>One Membrane       |  |  |
| D12651         | 12 LPH                       | 13.5 x 9.5 x 16.9<br>(34.3 x 49.5 x 42.9) | 100-240 VAC<br>47-63 Hz,<br>1 phase | 20.4 kg<br>(45 lb.)            | 2-6.8 bar (30-100 psig)<br>@1.5 liters per minute | Feed Water- 3/8"**<br>Product Water- 3/8"**<br>Reject Water- 1/4"** | 10-20%        | Pump Prefilter, MPS<br>Cartridge, Extruded<br>Carbon Filter and<br>One Membrane  |  |  |
| D12661         | 24 LPH                       | 13.5 x 9.5 x 16.9<br>(34.3 x 49.5 x 42.9) | 100-240 VAC<br>47-63 Hz,<br>1 phase | 20.4 kg<br>(45 lb.)            | 2-6.8 bar (30-100 psig)<br>@1.5 liters per minute | Feed Water- 3/8"**<br>Product Water- 3/8"**<br>Reject Water- 1/4"** | 20-30%        | Pump Prefilter, MPS<br>Cartridge, Extruded<br>Carbon Filter and<br>Two Membranes |  |  |

\* Based on inlet pressure of 20 bar (30 psig) and feed water of 25 C

#### Thermo Scientific Barnstead RO Membrane

| Specifications        |                        |                             |                  |                      |
|-----------------------|------------------------|-----------------------------|------------------|----------------------|
| pH:                   | Optimum Range: 6.5-7.5 | Operating Range: 4-11       |                  |                      |
| Temperature Range:    | 1-35°C (34-95°F)       |                             |                  |                      |
| Silt Density Index:   | <5%                    |                             |                  |                      |
| Turbidity:            | < 1.0 NTU              |                             |                  |                      |
| Maximum TDS:          | 800 ppm                |                             |                  |                      |
| Langlier (LSI) Index: | < 1                    |                             |                  |                      |
| Iron Total as Fe:     | < 0.5 ppm              |                             |                  |                      |
| Silica:               | < 30 ppm               |                             |                  |                      |
| % Rejection:          | Typical Ionic: 94-99%  | Organic: 99% (<100 daltons) | Particulate: 99% | Microbiological: 99% |

#### **Accessories**

| Cat. No. | Description                               |  |  |
|----------|---|--|--|
| D12681   | 30 Liter Reservoir                        |  |  |
| AY1265X1 | Remote Mounting Control Panel Accessory   |  |  |
| AY1268X2 | Bench Mounting Stand for D12681 Reservoir |  |  |
| D7427    | Hot & Cold Water Mixing Valve             |  |  |
| D502113  | 5 Micron Prefilter                        |  |  |
| D502114  | MPS Cartridge                             |  |  |
| D502115  | Extruded Carbon Filter                    |  |  |
| FL1265X1 | Membrane                                  |  |  |



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